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ABSTRACT

The purposes of this paper are to examine the dominant theory on curriculum objectives, as represented in the production model and to develop a new perspective for objectives. The guiding theoretical framework is system theory. Data were gathered by compiling the work of advocates of the production model. The data are explained, analyzed, and interpreted in view of their chief assumptions and consequences and in view of the findings of recent research. The real nature of curriculum objectives and a new way of thinking of them is explained. Three propositions demonstrate the basic conceptual structure the speaker has found useful in theory building. The implications of these propositions are outlined. (Author/IRT)

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A New Perspective for Curriculum Objectives

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Introduction

Curriculum as a field of inquiry has been described recently as dead or, at best, moribund. It has been viewed by Kliebard as "ahistorical" with an "ameliorative orientation" and "lacking in definition."[1] "The majority of educationists, educational practioners and scholars active in the field of curriculum," Johnson says, "are oriented toward improvement rather than understanding."[2]

According to Klohr, these are harsh but accurate indictments. Such indictments, however, in his view serve to earmark a growing body of criticism and theory development that promises to breathe life into the field of curriculum.[3]

In reviewing the state of the field in 1971, Macdonald identifies three major groups of theorists at work: (1) those who are generating guidelines for curriculum development in practical school situations; (2) those who are committed to the application of conventional concepts of scientific theory building; (3) those who maintain that curriculum theorizing should be neither used as a base for prescription to aid curriculum producers or as an empirically testable set of principles and relationships.[4]

The first group, Macdonald points out, is, by far, the largest. The model adopted by this group in both curriculum theory and practice is a technological or production model. Its ends are basically utilitarian. Macdonald identifies some of the constraints and limitations of this approach to theory building. Kliebard asserts that the tasks of the future in curriculum as both a field of knowledge and inquiry are

essentially to develop alternatives to such a model.[5]

This paper examines this curriculum theory approach in general and focuses on the problem of generating curriculum objectives within it. A new perspective for curriculum objectives is projected as an alternative.

The Technological Model: A Brief Description

This model provides a conceptual framework in which curriculum development is viewed as steps in linear sequence. As a case in point, Tyler's rationale presents a four-step sequence: 1) identifying purposes and objectives from three major sources; 2) selecting appropriate educational experiences; 3) organizing educational experiences; 4) evaluating the outcomes.[6]

This model can be traced directly to the writings of Bobbitt and Charters in the mid 1920's. For Bobbitt, life consists of specific and identifiable activities. And "education has no purpose than to prepare men and women for activities of every kind which make up, or help to make up, a well-rounded adult life."[7] Curriculum, according to Bobbitt, is that "series of things which children and youth must do and experience."[8] Both Bobbitt and Charters reasoned that curriculum making was basically "educational engineering." In Charters' words, curriculum "in its simplest forms involves the analysis of definite operations to which the term job analysis is applied, as in the analysis of the operations involved in running a machine."[9]

Taba's model for curriculum design is similar to Tyler's. But, she introduces important modifications. Her proposal refined Tyler's four-step sequence into seven-steps: (1) diagnosis of needs; (2) formulation of

objectives; (3) selection of content; (4) organization of content; (5) selection of learning experiences; (6) organization of learning experiences; and (7) evaluation.[10]

Although Taba worked within Macdonald's category of practice-oriented theory builders, her contribution in making a distinction between content and learning experiences is significant. Moreover, she tried seriously to translate this approach into strategies for instruction with an emphasis on critical thinking.

Goodlad and Richter have further refined the Tyler model. Basically, their concern is with levels of the decision-making process and the sources of data for such decisions. They identified four levels of decision-making in curriculum: social, ideological, institutional and instructional. Their model was described by Macdonald as the most elaborate contemporary rationale for curriculum development but basically a further extension of Tyler's thinking.[11] The merit of Goodlad and Richter's proposal is its undergirding assumption that values are the "beginning points" instead of a "screen" through which objectives derived from society, learners and subject matters are to be filtered.

It is significant in the claim made in this paper that curriculum objectives, as a first step to be taken in curriculum development, was emphasized by all of the proponents of the technological model. In Bobbitt's view, they are the guiding principles which lead curriculum-making with "all certainty, that is possible, in the right direction."[12] According to Tyler, they are "the criteria by which materials are selected, content is outlined, instructional procedures are developed and tests and examinations are prepared."[12] Taba held that "curriculum development is a complex

undertaking and the decision must be made about the aims which schools are to pursue and about more specific objectives."[14]

Goodlad has stressed the importance of specifying objectives in behavioral terms. For him, "objectives are statements of educational intent expressed so specifically as to establish criteria for selecting and organizing what is to be taught.'[15]

Writings of such influential figures in the field of curriculum have clearly been a major factor in the current crusade-like movement toward behaviorally-stated curriculum objectives. The movement has become so intense and the rhetoric so evangelical that any one who questions it or states reservations tends to be labeled a conservative, reactionary, or non-scientific-minded person. Recognizing this risk, this observer is nevertheless convinced of the need to identify some of the crucial shortcomings and/or pitfalls of the technological model underpinning this movement.

Reappraisal and Critique

In reappraising what has been referred to here as a technological model, an explication will be made of its underlying assumptions and the direct implications of such assumptions for the whole matter of curriculum objectives. Three points are relevant:

1. The means-end assumption

The major assumption in which this model is rooted is the means-end assumption. This assumption is made sometimes implicitly, and, more often, explicitly. Popham, for example, declares "curriculum questions revolve around consideration of ends; that is the objectives an educational system hopes its learners will achieve."[16] According to him, "a properly stated

objective must describe without ambiguity the nature of the learner behavior or product to be measured."[17]

In such a view, behaviorally-stated curriculum objectives are considered as ends. Curriculum content, transaction within the instructional settings including teachers and students become means to these ends. In effect, the predetermined, premeditated verbal statements are objectified and factualized. Living human beings, teachers as well as students, tend to become subordinates with the genuine risk of becoming finally dehumanized and looked upon as "means" and instruments to those so-called ends.

This means-ends assumption is based on an instrumental concept of man. Men and women, children and youth are seen only as functional, responsive, and goal-oriented organisms. Behavioristic psychology supports this view. This assumption is adequate in coping with problems of the physical universe, with materialistic substances such as machines, but not with human beings. Man can function effectively within this value frame if, for example, he is making plans for travelling, making a cake, or constructing a high dam. In such domains, we have agreed-upon and concrete criteria against which we can judge and measure both the processes used and products.

According to Peters, applying this interpretation of human experience to the sphere of education is grossly misleading. It assumes that values enter into education at the point of predetermining objectives in behavioral terms. In so doing "we get the wrong picture of the way in which values must enter into education."[18] Values enter into the curriculum development process not only at the time of decision-making about objectives and their formulation in behavioral terms, but also, into the knowledge base upon

which the learning experiences rest. In effect, all such experiences are value laden. The old question asked by Herbert Spencer "what knowledge is of most worth?" is still with us. It cannot be shaken. At the present time, there is renewed concern regarding whether education should be predominately liberal, technical, or vocational. Proposals for new curriculum designs to develop general education outcomes are again being widely considered.

With such renewed interest in this persistent question, the position taken by Peters assumes even greater importance:

> Yet the model of means to ends is not remotely applicable to the transaction that is taking place. Values, of course, are involved in the transaction; if they are not it would not be "education", Yet they are not end products or terminating points of the process. They reside both in the skills and cultural traditions that are passed on and in the procedures for passing them on. [19]

The behavioristic, technological interpretation of means-ends is in sharp contrast to the intrinsic continuity of ends and means which Dewey formulated. He asserted that "an end which grows up within an activity as a plan for its direction is always both ends and means." [20]

The four levels of decision-making identified by Goodlad and Richter draw attention to this value problem. Although their model has avoided one of the major shortcomings in Tyler's model, the intent of their model is clearly concerned with the points at which values come to curriculum not with the content or processes of valuation in the sense that both Peters and Dewey view the role of values in such a process.

2. The taxonomizing of objectives pitfall

The movement toward stating curriculum objectives in behavioral terms was undoubtedly furthered by the widespread use of Taxonomy of Educational Objectives by Bloom and his associates. In this taxonomy, objectives

objectives are classified into three domains: cognitive, affective and psychomotor. The objectives in the first two domains are specified by Bloom and his associates in two volumes. More recently, the psychomotor domain has been given attention largely in the fields of industrial education, physical education and others concerned with the study of human movement. One such effort in the psychomotor domain was made by Harrow.[21]

Taxonomizing objectives is full of many difficulties and traps for the curriculum theorizer and developer. Some of the most prevalent of these are:

1.) The present taxonomies show little awareness of the fundamental relationships among various kinds of the objectives. As Peters says, "when it comes to deciding the curriculum objectives which we wish to pursue, we cannot think that they are independent elements that can even be characterized, let alone achieved, in isolation of each other."[22]

2.) In taxonomizing objectives, it is assumed that objectives stated in behavioral terms are the counterparts of behavior. Such an assumption is unwarranted. This point will be pursued further later in this paper.

3.) Epistemologically speaking, any taxonomy must be made in accordance with the logical rules that govern such an endeavor--namely, it must be both exhaustive and inclusive. These two conditions are not met in Bloom's taxonomy.

3. Behaviors as indices of objectives

Curriculum objectives are stated, by necessity, in language. To say that behaviorally-stated objectives are the criteria through which materials are selected, procedures are developed, and behaviors are evaluated is to ignore the basic nature of language.

The limits of language are pointed out by the general semanticists, the phenomenologists, the gestalt therapists and many others. Carroll, for example, puts it this way:

> A linguistic statement can never be completely verdical. A description cannot encompass all aspects of the scene or event it purports to describe; it must necessarily be selective. A proposition can never completely delimit the possibility of its interpretation.[23]

This is the major difficulty we face with language in general. What, then, is the nature of objective statements, among other linguistic statements? Clearly, statements of objectives or intentions are <u>not</u> empirical statements like those used in science. They do not give information about the world. Furthermore, they are neither facts nor acts that can be verified by tests conducted in terms of our experiences and ultimately of our sense-experiences. Statements of curricular objectives also, are not analytic statements that can be verified in terms of certain logical rules.

The real nature of the so-called behavioral objectives, as used in curriculum proposals, is that they are attitude-statements; i.e., statements of intentions. They are used to express the speaker's and/or the writer's wishes, desires, hopes, and feelings. Such statements describe neither facts nor acts. They signify only what Ryle calls "dispositions."

At this point of formulating objectives for curriculum, we are not talking about something real, but about something which might or might not happen. The outcome of our stated intentions depends ultimately on the needs of the actors on the one hand, and on the character of the situation in which they are involved. That is to say, learners are prone to do something, if, and only if, the whole situation in which they are involved permits such action. In short, the ecology of the learning situation is very important.

What happens when curriculum objectives are transmitted to teachers is a significant dimension of our analysis of a more adequate curriculum theory base. Curriculum objectives are communicated to teachers in order to control their courses of action, and to let them manipulate their students in the light of those stated objectives. What can be said about the nature of the communication processes in such a transmission bears close scrutiny.

Given that curriculum objectives are stated in optative language, they are subject to misinterpretation, reinterpretation, and sometimes, to distortion. A study has been made of this process using a careful empirical research approach in which the process of communicating objectives to teachers in 77 school systems was tested. Ammons conducted research which found that:[24]

1) The process used to develop objectives is not related to teachers' use of objectives. 2) Teachers tend to base their instructional programs on what they had customarily done and/or textbooks rather than on the statement of objectives. 3) There is no guarantee that specific activities provided in response to the statement of an objective are related to what is actually intended by the objective.

Such findings represent a communication breakdown with respect to curriculum objectives. Such communication breakdown is found more often than not in various domains of human inquiry. It is found in philosophy, politics and the like. It is even found in the so-called exact-sciences. As Thomas Kuhn sees it, "Two men who perceive the same situation differently but nevertheless employ the same vocabulary, must be using words differently."[25]

In communicating curriculum objectives to teachers, we are in a situation which is not much different from the situation in which children converse and "they fail to understand each other because they think they understand each other." This failure is due to the fundamental characteristic of language, in general, and to the nature of linguistic statements used in formulating objectives, in particular. This fundamental characteristic of language is what Waisman calls its "open texture."[26]

In terms of the foregoing discussion regarding behaviorally-stated objectives, one is justified to say that the ultimate educational and/or curriculum objectives are neither completely foreseeable nor linguistically stateable.

This generalization is supported by many studies which cannot be examined in detail. To refer to only one, we cite Coleman's study on educational achievement in which he doubts the effectiveness of many school programs.[27] Goodlad, one of the spokesmen for behaviorally-stated objectives, admits that there is a very low correlation between academic success and many important educational objectives such as: personal stability, leadership, family happiness and honest workmanship.[28] Searching for the most important factor in achievement, Coleman suggests that the individual's self-concept, and consequently, his perception of his control over his future is crucial.[29]

Bruner sees that unless the learner masters himself, disciplines his taste, deepens his view of the world, the knowledge that is acquired is hardly worth the efforts made in its transition.[30] The aims described by Coleman, Goodlad and Bruner defy statement in behavioral and observable terms. Nor can they be evaluated and measured in conventional evaluation procedures. Reducing curriculum objectives to only behavioral objectives in order to be observed and measured in a quantitative way is, indeed, putting

the cart before the horse. Curriculum objectives should not be dependent on or derived only from possible outcomes that lend themselves to the present procedures available in evaluation.

A New Perspective for Curriculum Objectives

If the foregoing arguments are valid, we face the problem of generating more adequate alternatives. At the outset, it should be made clear that this examination of behavioral objectives should not be interpreted as a call for "stamping out" behavioral objectives. That is too nearly a bumper sticker solution. One can be fully aware of their benefits to curriculum development, teaching, evaluation and research and at the same time demand more understanding of their nature and limitations. What is called for here is that behaviorally stated objectives should be seen as neither inclusive nor exclusive in any conceptual structure intended to make order out of complex curriculum development phenomena.

To begin to generate a more effective alternative requires what might seem to some to be a rather presumptuous stance on the part of the theory builder. In effect, such an individual must be willing to see himself as engaging in nothing short of helping to bring about a major paradigm shift, to use Kuhn's terminology. The following three propositions serve to demonstrate the basic conceptual structure this investigator has found useful in his theory-building efforts.

Proposition One:

> Curriculum is a concept that signifies a universe of planned learning experiences in which students engage, under the auspices of the school, and through which they may attain some desired objectives and become thereby more fully self-actualizing persons in an ever-evolving society within an ever-evolving world.

This proposition includes some key concepts that require further explanation. "Ever-evolving society" indicates that in both curriculum theory and practice we should be concerned about the unification of society's "past-present and future." An "ever-evolving world" implies that education in any society should not be thought of in isolation from what is going on in other societies and in the world at large. The word "may" clearly suggests that there is no guarantee that what we desire as ends will necessarily be reached as intended. In other words, we should realize that absolute control and/or complete manipulation of the individual and his environment will not produce what is intended prior to the actual transaction.

"Learning experiences" means that experience is the source of the basic data of knowledge. Further, it means that knowledge can come only from experience; whether sensory, nonsensory and/or extrasensory. In effect, "knowledge" cannot be seen apart from the knower. Knowledge has its effect upon the knower to the degree that he discovers its personal meaning in a transaction with it. Thus, in both curriculum theory and practice, we can respect this point of view by leaning on what Maslow has identified as D cognition and B cognition. The D cognition is the cognition in which knowledge is usually highly abstract and sharply defined. "Knowledge" of this kind is related to the outer world. It is functional and instrumental in nature. B cognition is the cognition of the inner world of the learner. This world includes preverbal, ineffable, metaphorical, intuitive, esthetic and religious types of cognitions.[31]

These two kinds of cognition have been recognized by scholars in various fields. Polanyi, for example, in both his Personal Knowledge and The Tacit Dimension made such a position very clear.[32] Mooney identifies

these two dimensions of cognition as the "consumer's point of view" of the world and the "producer's point of view." The integration between the two is seen by Mooney in this way:

> whereas the consumer's world view presents split by the core of its rudimentary splitting nature from man and the postulation of two universes, the producer's world view provides a frame of mind which integrates man and nature and presents one universe.[33]

Macdonald emphasizes a similar interpretation when he identifies two kinds of knowledge and meaning: personal meaning and culturally-defined meaning, coming from "know thy self" and "know thy world."[34]

Proposition Two:

> Curriculum is viewed as a conceptual intersystem out of which there are supra-systems: social, economic, political, religious and educational, and within which there are sub-systems: 1) content; including its selection, structure, organization, and teacher's guides; 2) instruction; including various transactional processes; logical, social and psychological; 3) evaluation as feedback.

Conceiving curriculum as a system is not new. Macdonald applied the main properties and common concepts of systems theory to curriculum in 1964.[35] About the same time, this investigator undertook a similar task.[36] A fundamental difference between Macdonald's attempt and this writer's rests in the fact that he conceives of "instruction" as a system more nearly separate from the curriculum system. Although he recognizes overlap between the two, his proposal tends to require that one confine the functions of the curriculum system to what is prior to instruction such as, for example, course of study, teacher's guides, daily lesson plans, and the like. His model for curriculum also includes other elements such as supervision, administration and in-service training. Such elements, in the view projected here, are remote from the direct influencing of students. Therefore, elements

of this kind should be kept out of the curriculum system. From this perspective, they should be seen as distinct subdomains of education just as curriculum is seen. Elements of this kind are better dealt with as related, but independent, systems. Griffith's work in administration is a case in point. Separating curriculum from instruction is, of course, theoretically possible. But, we should face the consequences of such separation. Some of these consequences have already been observed. With the great effort, energy, and money assigned to reviewing the structure of disciplines, little effort was directed to: (a) linking the structure of these disciplines to instruction; (b) relating the structure of these disciplines; mathematics, science and foreign language, for example, to the structure of curriculum as a whole.

Viewing curriculum as separate from instruction implies that what is planned prior to instruction is, in itself, and by itself, "fitting." This assumption is far from being substantiated.

Proposition Three:

> If viewing curriculum as a conceptual intersystem is valid, curriculum objectives can be seen as consisting of two types: (a) micro-objectives and (b) macro-objectives. The first type should supplement the latter not supplant it.

"Micro-objectives" means what is desirable, because it is foreseeable and can be specified verbally. These objectives come to the system of curriculum from its surrounding larger systems: economic, political, social, and ideological. These objectives constitute external, or exogenous, inputs into the system. Due to their nature, they are subject to change, reinterpretation, and misinterpretation. That is to say, their effect depends heavily on what is going on within the system of curriculum. Such objectives

are usually, spoken of in micro-language, or behavioristic, terms. They represent the particulars known in "here-and-now." In other words, they represent what we can name for students.

The macro-objectives are objectives that stem out from the within of the system. They represent the internal, or ontogenous, inputs of the curriculum system. They are, in effect, its real outputs. They come out from the transactional processes within the instructional settings. They grow out of the encounter that takes place between teachers and students in order to name, in a more meaningful way, the world. In such encounters, the learners rename for themselves. No others in whatever role can do this. The macro-objectives are almost always ineffable and hardly expressable in behavioristic terms. Sometimes, they are spoken of in macro-language terms such as "creativity," "intuition," "discovery," "self-actualization" and the like. Such macro-objectives cannot be seen before the self-reliant encounters of students.

Some Implications

This perspective for curriculum, in general, and for curriculum objectives, in particular, has important implications for both curriculum theory and practice. It is beyond the scope of this paper to detail all of such implications, but the following suggest something of their range and significance.

1. In a complex field such as curriculum, there is no hope for more effective ordering of the complex phenomena unless serious efforts toward theory building are taken. A theory of curriculum is not likely to evolve from continued empirical research within the paradigm of the so-called technological model. Research toward a more adequate curriculum theory is

basically conceptual in nature. If we seek a genuine paradigm shift, we must direct our efforts accordingly. This requires a reconceptualization of what is truly scientific.

2. Curriculum objectives, in the perspective projected here, should be seen as wider and deeper than ends stated in behavioristic terms in order to accommodate operations generated within the system. The output of curriculum is the end result of the whole system. Such a reconceptualization has profound implications for curriculum evaluation. Evaluation in terms of a more adequate systems model is "free-objectives" evaluation, in the best sense of that term.

3. In both curriculum development and chance, we should be oriented by an organic, holistic conception of "system." This is to say, that content or instruction as a subsystem of an intersystem should not be considered as a self-contained system. A change in content or in instruction may be considered only as a vantage point from which we can start changing the system. Unless change made in one is closely related to other subsystems within the curriculum system, the system will approach an imbalance or non-steady state.

The intent of this paper has been to share some of the "work in progress" of one individual who is attempting to generate more adequate curriculum theory with a focus on the more precise meaning of curriculum objectives within that theory. One thing remains clear: there is much work yet to be done. A continuing dialogue with others engaged in similar tasks is urgently needed.

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